

EUROPEAN PATENT OFFICE

Patent Abstracts of Japan

PUBLICATION NUMBER : 08297183
PUBLICATION DATE : 12-11-96

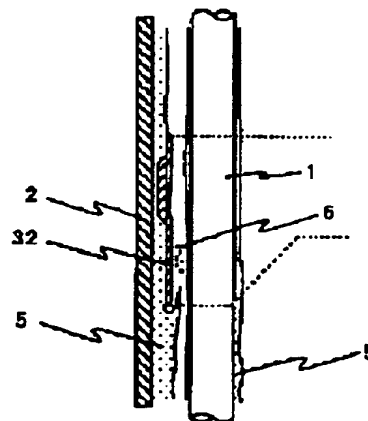
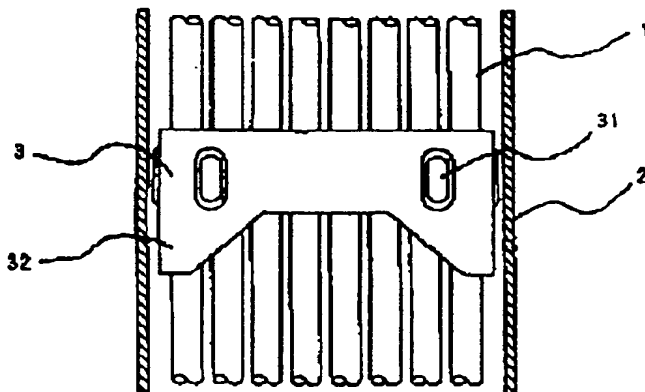
APPLICATION DATE : 27-04-95
APPLICATION NUMBER : 07103401

APPLICANT : HITACHI LTD;

INVENTOR : KAWASAKI TERUFUMI;

INT.CL. : G21C 3/344 G21C 3/34

TITLE : FUEL SPACER



ABSTRACT : PURPOSE: To make liquid films thick, suppress a boiling transition, and improve a critical output by providing projections extended toward the upstream side against the main stream of a coolant near the corners of the outermost periphery (channel box inside) of a coolant passage.

CONSTITUTION: Projections 32 provided on a side band 3 become obstacles against liquid films 5 flowing along a channel box 2, and part of the liquid films 4 are peeled off and scattered toward fuel rods 1. Part of the liquid films 5 flowing in the box 2 and not contributing to the heat removal of the fuel rods 1 are peeled off, water can be positively fed to the fuel rods 1 at the corner sections where a boiling transition is apt to occur, the thickness of the liquid films 5 flowing along the fuel rods 1 is increased, and the critical output of a fuel assembly is improved. The thermal margin of a reactor is increased, it can be operated at a high output, the burnup of the fuel rods 1 is increased, the fuel cycle cost can be reduced, and the economical efficiency is sharply improved.

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